

ABSTRACT OF THE DISCLOSURE

A pneumatic tire has a carcass structure having at least one carcass ply and at least one annular reinforcing structure associated with the carcass ply, a pair of axially opposite side walls on the carcass structure, a belt structure arranged at a radially outer position with respect to the carcass structure and a tread band arranged at a radially outer position with respect to the belt structure, and generally having a first elastomeric material incorporating at least one portion substantially of a second elastomeric material. The tread band has at least one groove defined in the at least one portion substantially of the second elastomeric material wherein the ratio between the modulus of elasticity under compression at 100°C of the second elastomeric material and the modulus of elasticity under compression at 100°C of the first elastomeric material is not lower than about 1.30, and wherein the ratio between the IRHD hardness at 100°C of the second elastomeric material, measured in accordance with standard ISO 48, and the IRHD hardness at 100°C of the first elastomeric material, measured in accordance with standard ISO 48, is lower than about 1.10.